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### Recommended Citation

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# Youth Experiences of Family Violence and Teen Dating Violence Perpetration: Cognitive and Emotional Mediators

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## Abstract

This article describes a conceptual model of cognitive and emotional processes proposed to mediate the relation between youth exposure to family violence and teen dating violence perpetration. Explicit beliefs about violence, internal knowledge structures, and executive functioning are hypothesized as cognitive mediators, and their potential influences upon one another are described. Theory and research on the role of emotions and emotional processes in the relation between youths' exposure to family violence and teen dating violence perpetration are also reviewed. We present an integrated model that highlights how emotions and emotional processes work in tandem with hypothesized cognitive mediators to predict teen dating violence.

## Introduction

Physical violence in teen dating relationships is a common and potentially very serious public health problem. National surveys of high school students in the United States indicate an annual prevalence rate for physical dating violence (e.g., pushes, slaps, kicks, and punches) of about 10% (Eaton et al. 2007). Estimates based on more circumscribed, but representative, local samples tend to be much higher. This is especially true when prevalence rates are presented specifically for teens in dating relationships; for example, in a large, representative sample of teens from a rural school district in North Carolina, 15% of dating men and 28% of dating women reported the perpetration of physical violence toward a dating partner at least once (Foshee 1996). In another large, representative sample of teens from seven public high schools in Long Island, New York, 24% of men and 40% of women (all in dating relationships) reported having committed physical violence toward their current dating partner (O'Leary et al. 2008). A number of researchers, in fact, have reported prevalence estimates for the perpetration of physical dating violence among teens to be 40% or higher (see Hickman et al. 2004, for a review), with women generally exhibiting either equal or higher rates of violence than men. Acts of psychological aggression (e.g., ridiculed or made fun of in front of others, insulted with putdowns) have been found to be more than twice as prevalent as acts of physical violence and to occur with a much greater frequency (e.g., Jouriles et al. 2009; O'Leary et al. 2008).

The consequences of physical violence in teen dating relationships can be severe (Wolitzky-Taylor et al. 2008); for example, in the North Carolina study cited above (Foshee 1996), approximately 52% of male and 70% of female victims of physical dating violence reported that they had been injured (e.g., bruise, burn, cut, broken bone) because of things that a dating partner intentionally did to them; approximately 8% of the male and 9% of the female victims reported visiting a hospital emergency room as a result of such injury. In the New York study cited above (O'Leary et al. 2008), 22% of the men and 33% of the women in physically aggressive dating relationships reported that they had injured their partners; the most frequently reported injuries were minor cuts and bruises, but approximately 3% of the male and female victims reported needing treatment from a doctor. Symptoms of anxiety, depression, trauma, and substance use are often linked to experiences of teen dating violence and are conceptualized as outcomes of dating violence (e.g., Ackard et al. 2007; Callahan et al. 2003; Jouriles et al. 2005). Adolescent girls are more likely than boys to report physical injuries and psychological distress from being victimized by a romantic partner (Foshee 1996; Molidor and Tolman 1998; O'Keefe 1997). It should be acknowledged, however, that the more common dating violence scenario is that of milder levels of aggression, some of which is even intended to be playful (Capaldi and Gorman-Smith 2003; Jouriles et al. 2009). This might include a playful push that is performed with the intent to communicate surprise or disbelief, or a slap or shove to simply get someone's attention. These acts are in sharp contrast to those committed with the intent to intimidate or harm. Nonetheless, even "mild" or "playful" aggression has been linked to its victims' psychological well being (Jouriles et al. 2009).

Broad theoretical perspectives, such as Bandura's social cognitive theory (1986), as well as theory focused specifically on violence in teen relationships (e.g., Riggs and O'Leary 1996; Wolfe et al. 2004), locate the origins of teen dating violence within the matrix of family relationships. Specifically, living in a violent family is theorized to be a forerunner to the perpetration of teen dating violence. Empirical research consistently supports this idea, identifying family violence as one of the most consistent predictors of teen dating violence perpetration (e.g., Jouriles et al. 2006; Wolfe et al. 2005). Although the magnitude of this association typically is not large (correlations are often less than .30), relations of this magnitude are common when studying individual predictors of complex phenomena, such as teen dating violence. Unfortunately, although living in a violent family is reliably related to teen dating violence perpetration, little is known about *how* exposure to family violence leads to the perpetration of teen dating violence. As a result, little information exists to guide

researchers and clinicians in developing programs to reduce the risk of teen dating violence perpetration among children living in violent families.

This paper presents a conceptual model of cognitive processes hypothesized to be responsible for links between youth experiences of family violence and teen dating violence perpetration. We focus on physical dating violence as the primary outcome variable, because it has received most of the attention in the empirical literature. However, it typically co-occurs with other forms of relationship violence, such as psychological aggression (Jezl et al. 1996) and sexual violence (Ozer et al. 2004). We believe that the proposed model is applicable to these other forms of violence as well, but this is an empirical question. We also believe that the processes outlined in the model are similar for men and women. Although gender differences sometimes are found in this literature, it is not clear to what extent the causes of dating violence differ for men and women, and testing whether the model explains male and female perpetration equally well is an important question for future research.

Like all complex psychological constructs, physical dating violence is multiply determined, and a broad array of processes are likely to contribute to its development. We focus on cognitive processes because: (1) empirical evidence is consistent with the idea that cognitive processes play an important role in the perpetration of such violence, (2) many of the cognitive processes theorized to contribute to the development of teen dating violence are also potential outcomes of exposure to family violence, and (3) cognitive processes are malleable during childhood and adolescence; thus, they can be potential targets for intervention and prevention programs in a variety of settings (educational, correctional, and clinical). After presenting the model, we briefly discuss the role of emotions and emotional processes in understanding the link between youth exposure to family violence and teen dating violence, describing how they can be integrated in the model.

Although our model is specific to teen dating violence perpetration and unique within the literature on this topic, many of the concepts presented here have been discussed in other more general theories including Bandura's social-cognitive theory (1986), Agnew's general strain theory (2001), and Anderson and Bushman's general aggression model (2002). Nevertheless, the proposed model functions to bring these concepts together in a way that may lead to a better understanding of the phenomenon of teen dating violence.

## Defining Family Violence

Investigators consistently have found measures of family violence to relate to teen dating violence perpetration, but there is considerable inconsistency across studies in how family violence is conceptualized and measured. Most of the research linking family violence with teen dating violence considers family violence as parental intimate partner violence, parental violence toward children/adolescents, or both. Many researchers focus on physical acts of aggression; for example, parental violence toward children/adolescents is often assessed with 1-3 questions that ask how often a parent or adult hit or spanked the respondent while growing up (e.g., Foshee et al. 1999). Other researchers, however, have conceptualized parental violence more broadly, including multiple dimensions of child maltreatment (physical abuse, physical neglect, emotional abuse, emotional neglect, and sexual abuse), and used multiple questions to assess each dimension (e.g., Wolfe et al. 2001). The consistency of the association between these varied measures and dating violence suggests that the relation between family violence and dating violence perpetration is very robust, that is, it does not seem to be tied to a narrow or specific conceptualization of family violence. On the other hand, the conceptual breadth makes it difficult to determine whether particular aspects of violence increase risk of dating violence perpetration.

Among the many issues to consider when conceptualizing youth exposure to family violence are (1) the co-occurrence of different forms of family violence and (2) the specific behaviors or acts labeled as violent (narrow versus broad definitions of violence); for example, parental intimate partner violence and harsh parenting (or

child maltreatment) often co-occur (Appel and Holden 1998; Edleson 1999; Jouriles et al. 2008 for reviews), and it seems plausible that each is important for understanding how teen dating violence perpetration develops and unfolds. This reasoning is consistent with certain empirical findings, which indicate that exposure to both IPV and harsh parent–child interactions increases risk for adjustment difficulties, over and above exposure to IPV alone (McDonald et al. 2009). Thus far, only a handful of studies have considered intimate partner violence and harsh parenting simultaneously in the prediction of teen dating violence perpetration. Although findings from these studies are inconsistent, there is some evidence that both forms of violence contribute to the prediction of dating violence perpetration (Moretti et al. 2006). We expect that greater attention to the multiple forms of family violence and their co-occurrence will help substantiate the important role of the family in the development of dating violence among teens. In addition, we believe that these different types of family violence might lead to teen dating violence through similar mechanisms, but this is an empirical question in need of testing. There is also the question of what acts should be considered “violent.” Broader conceptualizations of intimate partner violence, such as those that include both psychological and physical abuse, seem to be more closely linked to child adjustment difficulties than narrower conceptualizations that include only physical violence (Jouriles et al. 1996). Careful consideration of these issues will likely increase the precision in theory and empirical research on youth exposure to family violence and advance our understanding of the relation between family violence and teen dating violence.

## Cognitive Processes and Variables

### Social Cognitive Processes: Explicit Beliefs

Social-cognitive theory (Bandura 1986) holds that repeated observation of models—especially models that are salient to and viewed positively by children and adolescents—facilitates the development of beliefs about the modeled behavior. Specifically, repeated observation of violent models is theorized to lead children to view violence as normative or acceptable in relationships, which in turn contributes to the likelihood of violent behavior (Bandura 1986, 2001; Huesmann 1988, 1998; Riggs and O’Leary 1989). Certain explicit beliefs are proposed to be especially pertinent to dating violence perpetration and may be especially likely to develop among youth in violent families; for example, if a child concludes from observing his or her own family that violence is justifiable in certain circumstances and in certain relationships (i.e., between romantic partners), that child will presumably have a more accepting attitude about using violence in his or her own relationships. Similarly, beliefs about outcomes of violence may be important influences in the perpetration of teen dating violence; for example, the belief that violence generally fosters positive outcomes may facilitate its use.

Theory and data on explicit beliefs are not exclusive to social-cognitive theories. Other theories of interpersonal violence also emphasize the contribution of explicit beliefs, but they focus on different beliefs; for example, feminist theories highlight the importance of rigid gender-role stereotyping, such as the belief that men are supposed to be dominant and aggressive, whereas women are supposed to be passive and cooperative/compliant. Rigid gender-role stereotyping is posited to promote a “power-imbalanced relationship,” in which men sometimes use violence to help preserve their power (Wekerle and Wolfe 1999). As another example, evolutionary theorists hypothesize that a man’s belief that a female partner may be unfaithful is especially important in the prediction of relationship violence (Cousins and Gangestad 2007). Specifically, men’s relationship violence is conceptualized as a mate retention tactic—a method for controlling a woman’s sexuality and keeping her in a relationship. The belief that a female partner may be unfaithful is hypothesized to trigger physical violence and different forms of emotional manipulation, such as threatening suicide if the woman leaves.

Over a dozen cross-sectional studies have documented links between teens’ explicit beliefs about dating violence and their reports of dating violence perpetration. Most of this research has focused on explicit beliefs

about the acceptability or justifiability of violence (e.g., Chase et al. 1998; Foo and Margolin 1995; Foshee et al. 1999; Lichter and McCloskey 2004; Kinsfogel and Grych 2004; O'Keefe 1997; Riggs and O'Leary 1996). However, other beliefs are also associated with dating violence perpetration such as the above-mentioned beliefs about positive or negative outcomes of violence (Breslin et al. 1990; Foshee et al. 1999; Riggs and Caulfield 1997), gender-role stereotyping, the belief that masculinity is equated with or defined by aggression toward or domination of women (Bookwala et al. 1992; Jakupcak et al. 2002; Malamuth et al. 1991; Muehlenhard and Linton 1987), and the belief that a female partner may be unfaithful (Cousins and Gangestad 2007).

It should be recognized, though, that there is considerable variation across studies in the magnitude of the association between explicit beliefs about dating violence and teen dating violence perpetration, and that the association tends to be stronger and more consistent for men than women; for example, Kinsfogel and Grych (2004) reported the magnitude of the association between the belief that relationship violence is justifiable when humiliated and dating violence perpetration to be  $r = .50$  for men and  $r = .16$  for women. Wolfe et al. (2004) reported a correlation of  $r = .26$  between attitudes justifying violence and men's dating violence perpetration, but no association for women. Thus, although not all research in this area converges on the conclusion that explicit beliefs contribute to dating violence perpetration, the bulk of the published studies point to this conclusion. There is also additional, albeit cross-sectional, evidence that explicit beliefs may mediate the relation between exposure to family violence and teen dating violence perpetration; for example, adolescents' beliefs about the acceptability or justifiability of dating violence (Foshee et al. 1999; Kinsfogel and Grych 2004), beliefs about positive outcomes for violence (Foshee et al. 1999), and acceptance of aggression as a problem-solving technique (Riggs and O'Leary 1989) may mediate the relation between youths' exposure to family violence and dating violence perpetration, especially for men.

The limited longitudinal research thus far on teen dating violence perpetration has produced mixed findings on the role of explicit beliefs about violence; for example, the finding that outcome expectancies and self-efficacy beliefs for violent behavior predicted men's dating violence perpetration 4–5 years later (Brendgen et al. 2002) suggests a robust association between explicit beliefs and dating violence perpetration. Outcome expectancies also predict dating violence perpetration in short-term longitudinal studies (Jouriles et al. 2011). However, some researchers have failed to find a relation between teens' explicit beliefs about dating violence and perpetration of relationship violence (Wolfe et al. 2004). Others have found that the relation holds for men, but not for women, and for beliefs about the acceptability of violence, but not other beliefs about violence (Foshee et al. 2001). Thus, although longitudinal relations have been documented between beliefs about violence and teen dating violence perpetration, they are most consistently documented among men. However, the research is sparse, and it is not clear whether explicit beliefs about dating violence are cause, consequence, or simple correlate of dating violence perpetration.

### Extending Theory: Multiple Explicit Beliefs Operating in Tandem

Research has generally examined explicit beliefs as independent entities, considering the linear association of each in isolation with dating violence. However, the more realistic scenario is that multiple pertinent beliefs operate simultaneously to influence dating violence perpetration. Thus, it is important to develop and test theory that considers this complexity and to evaluate how disparate beliefs might operate in tandem to influence dating violence perpetration. A number of plausible hypotheses can be generated and tested; for example, one particular type of explicit belief can explain the effects of all the others. In other words, findings for the influence of other types of explicit beliefs merely reflect their shared relation with the overarching belief. Another plausible hypothesis is that multiple explicit beliefs are important, and they exert additive or interactive effects on teen dating violence.

Other more complex relations can be proposed as well. To offer an example, a “most harmful belief” hypothesis might suggest that an adolescent man is as vulnerable to perpetrating dating violence as his most deviant or pro-violent belief makes him. Thus, a profile of beliefs would need to be identified and examined, and the focus would be on the particular belief that is most deviant or pro-violent; for example, all of some youths’ beliefs may fall within the normal range, with perhaps one exception, and that exception (be it acceptance of violence as a legitimate relationship tactic or subscribing to rigid gender-role stereotypes) may render them vulnerable to perpetrating dating violence.

## Extending Theory: Implicit Knowledge Structures

To date, most studies of cognitive processes related to teen dating violence have focused on the content of youths’ explicit beliefs or attitudes, which are consciously accessible. However, a second class of cognitions, *implicit knowledge structures*, which include schemas and scripts about social interactions, may also contribute to dating violence perpetration. In fact, we argue below that there are circumstances in which implicit knowledge structures may be more important than the more frequently studied explicit beliefs in predicting teen dating violence.

Theoretically, implicit knowledge structures operate automatically and outside conscious awareness; they are shaped by environmental transactions and are proposed to promote aggressive behavior by making aggressive thoughts highly accessible (Todorov and Bargh 2002). More specifically, exposure to family violence initially creates aggression-related schemata, which are crystallized by continued exposure to hostile or negative family interaction, thus heightening their accessibility. Ingrained highly accessible schemata and behavioral scripts can be activated even when information-processing capacities are taxed. Once activated, a “violence” schema or script renders ambiguous situational cues more likely to be interpreted as provocative and primes the adolescent to engage in aggressive behavior (Anderson and Bushman 2002; Berkowitz 2008; Dodge and Crick 1990).

This priming effect can be overridden given sufficient time, cognitive capacity, and motivation (Fazio 1990); however, these are often lacking in the circumstances surrounding dating violence, which tends to occur “in the heat of the moment” (Foshee et al. 2007). Intense emotion in particular interferes with cognitive processing, rendering reappraisal increasingly unlikely. The outcome is that many adolescents may perpetrate violence impulsively, with little conscious consideration of their actions and their consequences. In other words, implicit knowledge structures may be more closely associated with dating violence perpetration than explicit beliefs, which are more a product of conscious or reflective thought.

Huesmann’s (1988, 1998) information-processing model helps explain how behavioral scripts may lead to aggressive behavior. In Huesmann’s model, scripts include information regarding: (a) what events are likely to happen in an environment, (b) what the behavioral response should be, and (c) the likely outcome of the behavioral response. Rehearsal of the script and future learning opportunities may reinforce the script over time and increase its accessibility. When a social problem is encountered, well-rehearsed (i.e., over-learned) scripts are retrieved automatically and function to guide behavior. To illustrate, consider an adolescent who has observed repeated arguments between his father and mother (some of which involve physical violence), about the mother’s secret friendship with a male colleague. The father demands that she must end the relationship and quit her job. Frightened, the mother eventually agrees, but the arguments persist for years. From this situation, the adolescent may develop a script that includes attitudes or beliefs that: (a) women cannot be trusted or infidelity is likely, (b) making demands and being violent is acceptable in certain situations, and (c) demanding and violent behavior can get you what you want. Such a script may be activated by certain experiences (e.g., if a girlfriend has other male friends) in his own relationships and may increase the likelihood that he will become physically aggressive toward a partner.

A single study to date has examined implicit knowledge structures and their relation to dating violence (Jouriles et al. 2011). In a sample of teens recruited through the juvenile court system, implicit knowledge structures were assessed using a method designed to assess the accessibility of aggressive thoughts (Anderson et al. 2003). The measure involved presenting teens with ambiguous stimuli: words with letters missing (e.g., k i \_ \_) and that could be completed in multiple ways (e.g., as an aggressive word such as “kill” or “kick”, or as a non-aggressive word such as “kind”). The task was speeded to limit the influence of controlled processing. The score for the measure was computed by counting the total number of aggressive words. Results indicated that the accessibility of aggressive thoughts at baseline correlated with teen reports of dating violence perpetration both at baseline ( $r = .27$ ) and during the course of a 3-month follow-up period ( $r = .33$ ).

## Theory But No Data: Executive Function and Teen Dating Violence

Executive function encompasses neuro-cognitive processes that underlie goal-oriented behavior. It consists of a range of abilities necessary to achieve and maintain a problem-solving set, including planning, organizational skills, selective attention and inhibitory control, and optimal cognitive-set maintenance (Morgan and Lilienfeld 2000). Goal-oriented social behavior is also influenced by executive function; it contributes to the ability to reflect abstractly to solve interpersonal problems, plan behavioral responses, and anticipate likely consequences of one’s actions (Séguin et al. 1995). Individuals with diminished executive function may be easily overwhelmed in challenging social situations and respond impulsively or aggressively (Patterson and Newman 1993).

Development of executive function occurs throughout childhood, adolescence, and into early adulthood (Rosso et al. 2004). Theory and data indicate that youth exposure to violence corresponds with poorer executive function (e.g., Pears and Fisher 2005; Jouriles et al. 2008), and meta-analytic research points to a robust association between executive function and antisocial behavior in general (Morgan and Lilienfeld 2000). Although executive function spans a broad array of skills and competencies, specific aspects of it have been tied to youth aggression; for example, difficulty in inhibiting behavioral responses and poor planning skills have been linked to youth reactive and proactive aggression (Ellis et al. 2009). Moreover, correlational as well as experimental data indicate that behavioral self-control processes (which include behavioral inhibition, planning and cognitive-set maintenance, and problem-solving) are linked to late adolescents’ impulses to engage in dating violence, as well as their perpetration of it (Finkel et al. 2009). Unfortunately, tests of whether executive function mediates the association between exposure to violence and subsequent violent behavior are rare (Schatz et al. 2008; Shields and Cicchetti 1998), and executive function has seldom been considered in research on teen dating violence.

## Theoretical Integration: Putting the Pieces Together

In the sections above, we described three cognitive elements—explicit beliefs, implicit knowledge structures, and executive function—that may be adversely influenced by youth exposure to family violence, and that may contribute to perpetration of teen dating violence (see Fig. 1). Of these, explicit beliefs have received the most research attention. In fact, our review of the literature on teen dating violence uncovered only a single study that examined implicit knowledge structures (Jouriles et al. 2011), and none that examined executive function. However, the others also merit consideration in the search to understand the links between youth violence exposure and dating violence perpetration.



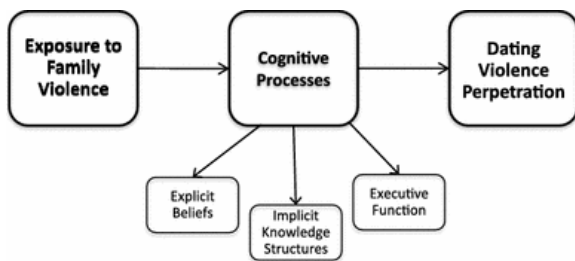


Fig. 1. Exposure to family violence, teen dating violence perpetration, and mediating cognitive processes

It is important to consider how explicit beliefs and implicit knowledge structures might operate in synchrony to culminate in the perpetration of teen dating violence. We believe that they both contribute in their own fashion, but that they may also be differentially activated, depending on the nature of the precipitating event. Specifically, dating violence can be conceptualized as either reactive, in which case implicit cognitions strongly influence behavior, or proactive, in which case explicit cognitions can override implicit ones to determine behavior. To illustrate, someone who becomes angry and hits a dating partner because the partner was talking with a potential rival demonstrates reactive aggression. Such impulsive, anger-driven responses to perceived provocation are likely governed primarily by implicit knowledge structures. On the other hand, hitting a dating partner in an attempt to manipulate or control a situation (e.g., so that the dating partner will do something the perpetrator wants) reflects proactive aggression, which is likely influenced predominantly by explicit beliefs about the costs and benefits of using violence.

To explicate this even further, we believe that explicit beliefs and implicit knowledge structures operate in sequence and may interact with one another in the prediction of teen dating violence. A model known as the reflective–impulsive model (Strack and Deutsch 2004) may help illustrate this. According to this model, behavior is a joint function of a reflective and an impulsive system. The impulsive system, which includes implicit knowledge structures, is modulated by the deprivation of needs and is responsible for generating affect. With little motivation or opportunity to engage in complex cognitive processes, the impulsive system tends to have privileged access to behavior; for example, implicit beliefs and behavioral scripts may become activated when adolescents feel that their needs in the relationship are threatened. If an adolescent’s implicit beliefs condone violence or if the most readily accessible scripts involve aggression, the adolescent may become violent toward his or her dating partners. This outcome is particularly likely under circumstances of high emotional arousal or when the reflective system is strained and self-control is limited.

The reflective system is responsible for generating judgments and behavioral intentions. These are heavily influenced by the perceived costs and benefits of a particular behavior, calling explicit beliefs regarding the behavior into play. If these explicit beliefs are accepting of violence or value its efficacy, a violent response may occur. On the other hand, if the beliefs do not support the use of violence, non-violent approaches to the situation may be more likely. This is particularly true when adolescents are motivated to engage in more complex thought processes, the behaviors in question are controllable and not yet habit, and the adolescents’ self-regulatory capacities are high.

Implicit knowledge structures operate first, that is, when a situation is first encountered, the impulsive system is engaged and mental representations (e.g., automatic attitudes or cognitions) are triggered. These representations are capable of prompting behavior without subjective awareness. If an adolescent’s implicit beliefs are conducive to violence, the adolescent is more likely to act violently. However, as the situation receives continued attention, the reflective system is engaged and explicit beliefs begin to exert more influence. Adolescents can simultaneously hold opposing implicit and explicit cognitions about dating violence. If opposing implicit and explicit cognitions are present, explicit cognitions are expected to override the implicit cognitions

after there has been an opportunity for sufficient cognitive processing of the situation (e.g., sufficient time has elapsed so that the reflective system could be engaged). If not, implicit cognitions are likely to take precedence in determining behavior.

Executive function is hypothesized to contribute in the prediction of teen dating violence, independent of implicit knowledge structures and explicit beliefs. Executive function may relate to the adolescent's ability to quickly activate explicit beliefs and engage in the more complex cognitive processing. Specifically, impoverished executive function may delay or compromise the adolescent's capacity to engage in controlled or reflective cognitive processing, so implicit cognition is more likely to guide behavior by default.

## Other Models Linking Family Violence and Dating Violence Perpetration

### Trauma

Repeated exposure to traumatic events can result in sustained functional changes in neurobiology, such as altered hypothalamic–pituitary–adrenal (HPA) axis functioning (e.g., De Bellis 2001), which, in turn, confers risk for aggressive behavior; for example, dysregulated HPA axis functioning resulting from chronic trauma exposure can render individuals more sensitive to and more reactive to stressors, including interpersonal stressors. Elevated psychological symptoms of trauma, including hypervigilance, have been observed in childhood victims of abuse and neglect, and in children exposed to interparental violence (Wolfe et al. 2004). Hypervigilance may lead an adolescent to interpret ambiguous or negative behavior from a romantic partner as hostile or threatening, and this interpretation may provoke a highly reactive, potentially violent response (Wekerle et al. 2001). Alternatively, for a youth whose cognitive and emotional processes have been shaped by exposure to family violence, playful physical gestures from a dating partner may trigger psychological responses that activate the stress system and increase the likelihood of an impulsive, aggressive response from the adolescent (Wolfe et al. 2004). Overall, the trauma model posits that exposure to family violence constitutes a traumatic experience, whereby the resulting trauma symptoms confer risk for dating violence perpetration.

The trauma model has been supported in both adult (e.g., Taft et al. 2010) and adolescent samples (e.g., Wekerle et al. 2001; Wolfe et al. 2004). Although trauma symptoms are often associated with exposure to severe family violence, they are also evident in samples characterized by milder family violence; for example, Wekerle et al. (2001) evaluated this model in samples recruited from high schools as well as those recruited from Child Protective Services (CPS). In both samples, trauma symptoms mediated the relationship between childhood maltreatment and girls' dating violence perpetration. In another study of CPS-involved adolescents, trauma symptoms mediated the relationship between emotional maltreatment and men's dating violence perpetration (Wekerle et al. 2009). In a large, longitudinal study, Wolfe et al. (2004) found that trauma-related symptoms predicted increases in both boys' and girls' dating violence perpetration 1 year later.

### Rejection Sensitivity

This model posits that early rejection experiences, which have been conceptualized to include certain forms of family violence (e.g., emotional maltreatment), can lead to rejection sensitivity, which encompasses anxious expectation of rejection, bias toward perceiving rejection, and heightened reactivity to perceived rejection (Downey and Feldman 1996). Those high in rejection sensitivity are hypothesized to avoid rejection by either avoiding close relationships or investing heavily in them in the hopes of finding unconditional acceptance (Downey et al. 2000). In the latter case, certain partner behaviors (e.g., inattentiveness) are interpreted as hostile or rejecting, and violence is used to manage the perceived threat or to convey hurt feelings and hopelessness (Ayduk et al. 1999).

There are only a few studies examining the rejection sensitivity model in adolescents, but they provide emerging evidence of its utility in understanding teen dating violence; for example, parent–child aggression has been

found to be related to rejection sensitivity at age 12, which in turn was related to dating violence perpetration at ages 16 and 17, even though rejection sensitivity was not found to mediate the link between parent–child aggression and dating violence (Brendgen et al. 2002). Similarly, in a sample of economically disadvantaged girls in middle school, rejection sensitivity was found to predict physical violence (Purdie and Downey 2000). Researchers have also found links between rejection sensitivity and dating violence perpetration in college student samples (e.g., Downey et al. 2000). It might also be argued that the construct of rejection sensitivity is similar to attachment security, and there is evidence that adolescents' attachment orientation toward romantic relationships moderates the association between attitudes about aggression and dating violence perpetration; for example, Grych and Kinsfogel (2010) found a stronger association between exposure to family violence and engaging in teen dating violence among boys with anxious attachment and girls with avoidant attachment. Further, attachment style interacted with adolescents' attitudes about aggression and their ability to regulate anger in predicting dating violence perpetration. Specifically, the association of attitudes about aggression and anger regulation with dating violence was attenuated by more secure forms of attachment. In short, rejection sensitivity appears to be important for understanding teen dating violence. Still, it is not yet clear whether children's exposure to violence is causally related to rejection sensitivity, or whether rejection sensitivity operates as a mediator or moderator of the relation between youth exposure to violence and dating violence perpetration.

### Emotion Dysregulation (Anger)

Abused or neglected children and adolescents often struggle to cope with the extreme emotional demands placed upon them and have difficulty controlling their behaviors when experiencing intense negative emotions (Gratz et al. 2009). Difficulties with anger regulation in particular may lead to violent behavior toward a romantic partner. Adolescents commonly cite anger as a reason for perpetrating violence against romantic partners (Henton et al. 1983; O'Keefe 1997), and empirical evidence indicates that measures of anger relate to the perpetration of teen dating violence, with correlations often reported in the .30 range (e.g., Clarey et al. 2010; Kinsfogel and Grych 2004). In addition, there is some evidence that anger mediates the relation between experiencing family violence and perpetrating dating violence; for example, Wolf and Foshee (2003) found that for both sexes, a destructive, direct anger expression mediates the association between experiencing family violence and dating violence perpetration; for women, destructive, direct anger expression also mediates the association between witnessing family violence and perpetrating dating violence. Kinsfogel and Grych (2004) found that anger regulation mediates the association between exposure to interparental conflict and dating violence perpetration for men. Clarey et al. (2010) similarly found support for anger control as a mediator of the association between exposure to interparental violence and dating violence perpetration in a sample of Mexican adolescents. Abused adolescents are also more likely than their non-abused peers to believe that they can become so angry that they cannot help hitting a dating partner (Smith and Williams 1992). In sum, difficulties with emotion regulation, particularly anger regulation, may increase the likelihood an adolescent will resort to violence during a conflict with a dating partner.

### Cognitive Processes Together with Emotions and Emotion Processes

Cognitive constructs and emotion processes (trauma, rejection sensitivity, and emotion regulation) most likely operate in tandem in the prediction of dating violence perpetration, and teens exposed to family violence are consistently in a position of increased risk. Figure 2 illustrates a conceptual model reflecting how these cognitive and emotional processes may operate in linking exposure to family violence and teen dating violence perpetration. As articulated above, the model reflects our expectation that exposure to family violence increases risk for teen dating violence by influencing cognitive and emotional processes that, in turn, increase the likelihood of teen dating violence. In addition, cognitions and emotions likely influence one another; for example, trauma symptoms and high emotional arousal (perhaps caused by rejection sensitivity and emotion

regulation processes) may delay or compromise an adolescent's capacity to engage in controlled or reflective cognitive processing. Thus, when severe trauma symptoms are present or in situations characterized by high emotional arousal, implicit cognition is more likely to guide behavior by default. In short, teen dating violence is most likely caused by a complex interplay and unfolding of these multiple cognitive and emotional phenomena.

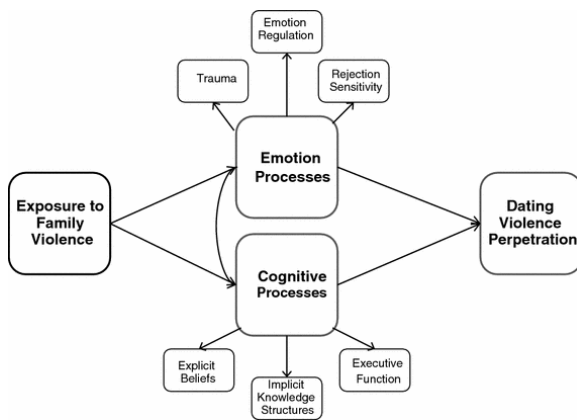


Fig. 2. Pathways from exposure to family violence to teen dating violence perpetration

## Summary and Concluding Remarks

Violence in teen dating relationships is common and potentially serious, and past exposure to family violence is a consistent and powerful predictor of such violence. There is also evidence that certain cognitive processes may develop as a result of exposure to family violence and that these may be important in explaining dating violence perpetration. We have offered a conceptual model of how these cognitive processes may mediate the relation between exposure to family violence and teen dating violence. We have also suggested ways in which emotional processes can be incorporated into the model. Our model is a first step in advancing and integrating cognitive and emotional theory as they pertain to teen dating violence, and in understanding the interplay among these variables in the lives of adolescents. Empirical research evaluating and extending the model holds promise for increasing the sophistication of our understanding of teen dating violence and for helping to prevent it.

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## Acknowledgments

This research was supported by Centers for Disease Control grant R01 CE001432, awarded to Ernest N. Jouriles and Renee McDonald.

## Keywords

Teen dating violence, Explicit beliefs about violence, , Internal knowledge structures, Family violence